

# Work Order ID 82032

**\*82032\***

Page 1

March-22-12 10:29:29 AM

*ASAP*

Item ID: D3405-041

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Lug Assembly

Start Date: 22/03/2012 Start Qty: 16.00

**\*16\***

Cust Item ID:

Required Date: 05/04/2012 Req'd Qty: 16.00

**\*16\***

Customer:

Reference:

Approvals: Process Plan: *MLJ*

Date: *12/03/22* Tooling:

Date:

Run Start **\*NR1\***

QC:

Date: SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D3405	Rev B
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100

0.00

**\*100\***

FLOW WATER JET

0.00 *B12-4-8*

Waterjet

Memo

FLOW CNC Waterjet

1-Cut as per Dwg D3405

*304 .125*

Dwg Rev: *B*

Prog Rev: *B*

2-Deburr if necessary

110

0.00

**\*110\***

QC2- Inspect parts off machine FAI/FAIB

0.00

QC

Memo

Quality Control

120

0.00

**\*120\***

QC8- Inspect parts - second check

0.00

QC

Memo

Quality Control

*(16)*

*(16)*

*5.214.09*

W/O: -		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
*12/11*	12/11						

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Work Order ID 82032

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Page 2

March-22-12 10:29:29 AM

Item ID: D3405-041

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Stop

**\*NS2\***

Item Name: Lug Assembly

Start Date: 22/03/2012 Start Qty: 16.00

**\*16\***

Cust Item ID:

Required Date: 05/04/2012 Req'd Qty: 16.00

**\*16\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

**\*130\***

Brake NC

Brake NC

NC BRAKE

Memo

1-Debur

2-Form using DT8204 as per Dwg D3405

3- use DT9681 to check if correct forming

0.00

0.00

16

8

SP 12/04/11

140

**\*140\***

QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

Scrub 11

16

150

**\*150\***

Large Fab

Large Fab

Large Fab

Memo

Weld as per Dwg D3405 use DT8484

Identify as D3405-041

0.00

0.00

16

EL 12-4-13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Work Order ID 82032

**\*82032\***

Page 3

March-22-12 10:29:29 AM

Item ID: D3405-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Lug Assembly  
 Start Date: 22/03/2012 Start Qty: 16.00 **\*16\*** Cust Item ID:  
 Required Date: 05/04/2012 Req'd Qty: 16.00 **\*16\*** Customer:  
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 <b>*160*</b> QC Quality Control	QC9- Inspect visual per QSI004- Fusion Welds  Memo	0.00  0.00							<i>CPC</i> 12.04.14
170 <b>*170*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00							<i>8.2/10/17</i> <i>(16)</i>
180 <b>*180*</b> Powdercoat Powder Coating	White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel  Memo START TIME: OVEN TEMPERATURE: FINISH TIME:	0.00  0.00							<i>16X</i> <i>12/04/17</i> <i>M/L</i>

*M121134*

*3-30*  
*400*  
*4-00*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

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Page 4

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Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Lug Assembly

Start Date: 22/03/2012 Start Qty: 16.00

**\*16\***

Cust Item ID:

Required Date: 05/04/2012 Req'd Qty: 16.00

**\*16\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

190

QC3- Inspect Part Finish

0.00

**\*190\***

QC

Memo

0.00

Quality Control

16 0 12/4/18

200

Identify as per dwg & Stock Location: **478**

0.00

**\*200\***

Packaging

Memo

0.00

Packaging

(160) 12/4/19 SP

210

QC21- Final Inspection - Work Order Release

0.00

**\*210\***

QC

Memo

0.00

Quality Control

12/4/19 SP

12-04-19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

March-22-12 10:29:33 AM

Page 1

Work Order ID: 82032

\*82032\*

Parent Item: D3405-041

\*D3405-041\*

Parent Item Name: Lug Assembly

Start Date: 22/03/2012

Required Date: 05/04/2012

Start Qty: 16.00

Required Qty: 16.00

Comments: IPP A05.09.01New issueKJ/JLM  
IPP B 09.01.28 rev.B drawing EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3404-1		Manufactured	No			100	Each	0.0000	1	16			
*D3404-1*									**				
GHW Lug													
M304S11GA		Purchased	No			150	sf	51.0000	0.154	2.593684			
*M304S11GA*									**				
304/316 0.125 Sheet													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT020		51							
				120243		19							
				121070		32							

B82052 x 16

\*\*

EL

12-4-12

\*\*

B12-4-8

(16)

pk70

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

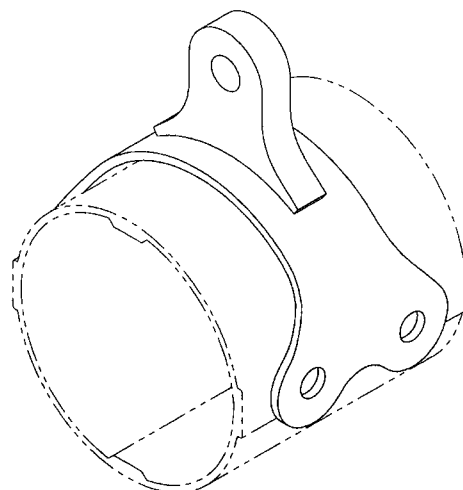
ITEM No.	QTY. -041	QTY. -043	PART NUMBER	DESCRIPTION
1	X		D3405-041	LUG ASSEMBLY
2		X	D3405-043	LUG ASSEMBLY
11	1	1	D3404-1	GHW LUG
12	1		D3405-1	GHW BRACKET
13		1	D3405-3	GHW BRACKET

△ B

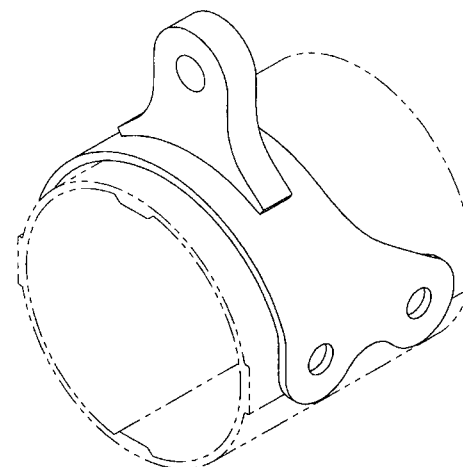
SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER

NO. 02032115

12/03/22



**D3405-041 LUG ASSEMBLY**  
(SKID TUBE SECTION SHOWN  
FOR REF ONLY)



**D3405-043 LUG ASSEMBLY**  
(SKID TUBE SECTION SHOWN  
FOR REF ONLY)

**RELEASED**  
08/12/18 MJS

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT ASSEMBLY WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3405-041" USING FINE POINT PERMANENT INK MARKER  
: IDENTIFY WITH DART P/N "D3405-043" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: -041, 0.85 lbs  
-043, 0.87 lbs

B	DRAWING REDRAWN IN SOLIDWORKS WITH CURRENT STANDARDS AND TRANSFERRED TO "B" SIZE BORDER. FLAT PATTERNS FOR -1 & -3 INCREASED IN LENGTH TO PREVENT FOULING AT INSTL (SEE PAR198) SHEETS 3 & 4 ZONE A6 4.120 DIM WAS 4.100.		AJS	08.09.19
A	NEW ISSUE		PH	05.03.08
REV.	DESCRIPTION		BY	DATE
DESIGN	PH	<b>DART AEROSPACE LTD</b>		
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA		
CHECKED		DRAWING NO.	REV. B	
MFG. APPR.		D3405	SHEET 1 OF 4	
APPROVED		TITLE	SCALE	
DE APPR.		GHW LUG ASSEMBLY	NTS	
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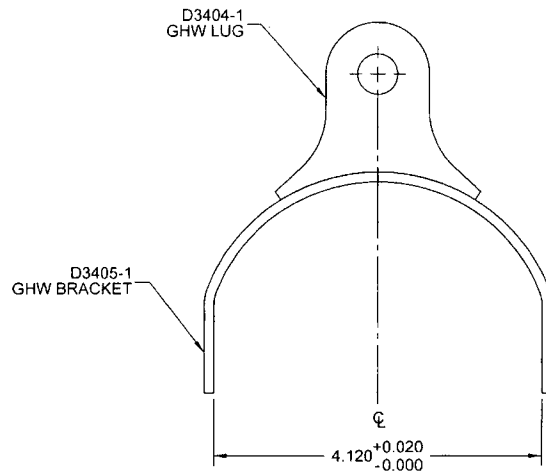
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

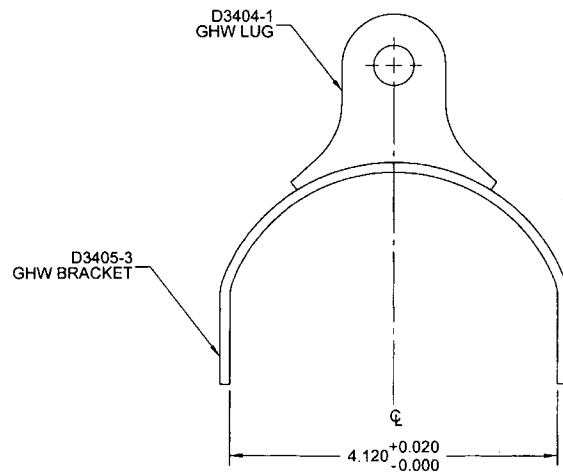
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

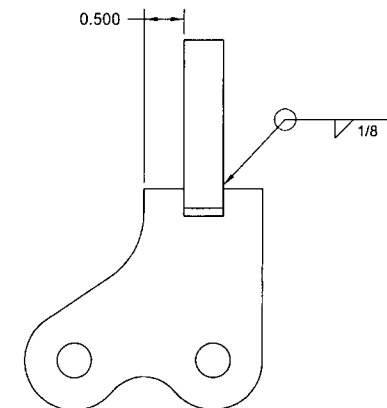
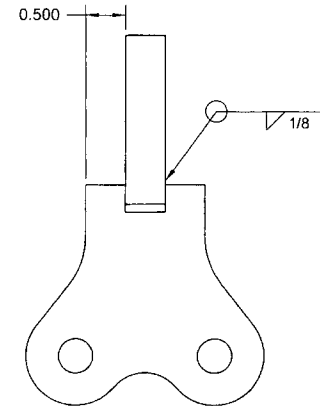
**NOTE:** Date & initial all entries



**D3405-041 LUG ASSEMBLY**



**D3405-043 LUG ASSEMBLY**



82032

RELEASED  
06/12/18 MTP

DESIGN	PH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3405	SHEET 2 OF 4
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DE APPR.		GHW LUG ASSEMBLY	NTS
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

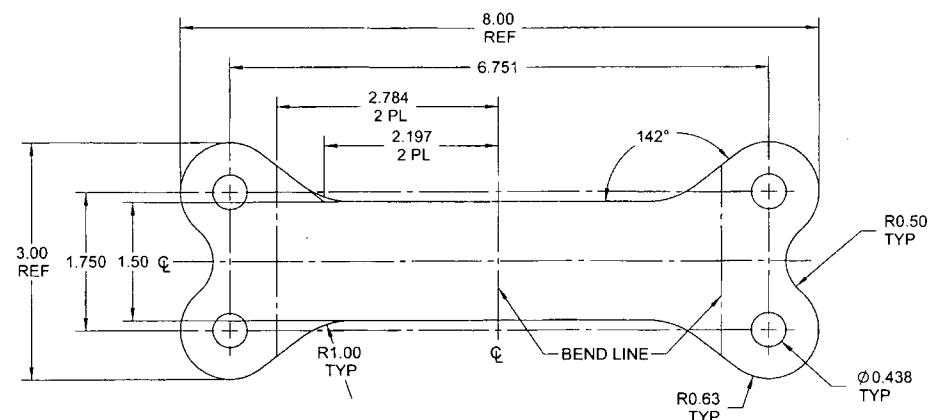
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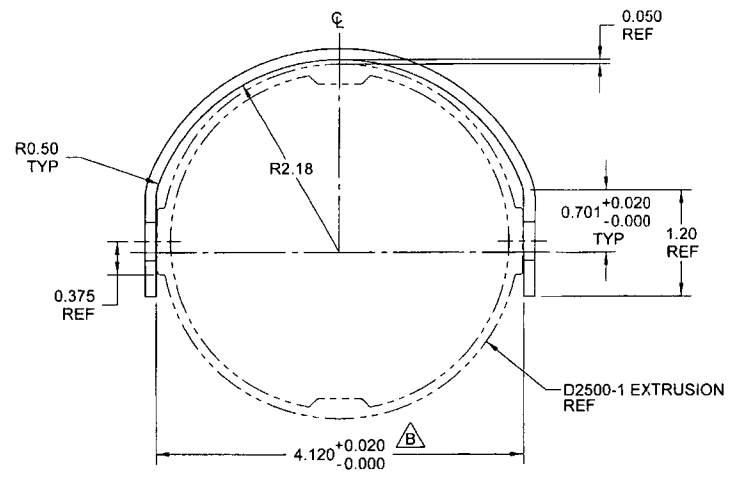
**NOTE:** Date & initial all entries



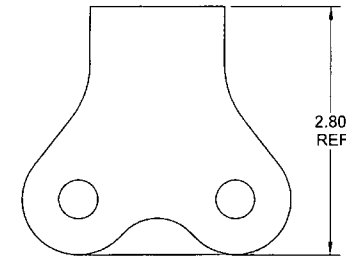
82032



**D3405-1F GHW BRACKET FLAT PATTERN**



**D3405-1 GHW BRACKET**  
(MAKE FROM D3405-1F)



SIDE VIEW FOR REF ONLY

- NOTES:
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 11 GAUGE (0.125 THICK)  
PER MIL-S-5059 (ANNEALED) 2B FINISH OR AMS 5513/5524  
REF. DART SPEC. M304S11GA
  - 2) FINISH: N/A
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: N/A

**RELEASED**  
08/09/19

DESIGN	PH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO. <b>D3405</b>	REV. B
MFG. APPR.			SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		<b>GHW LUG ASSEMBLY</b>	NTS
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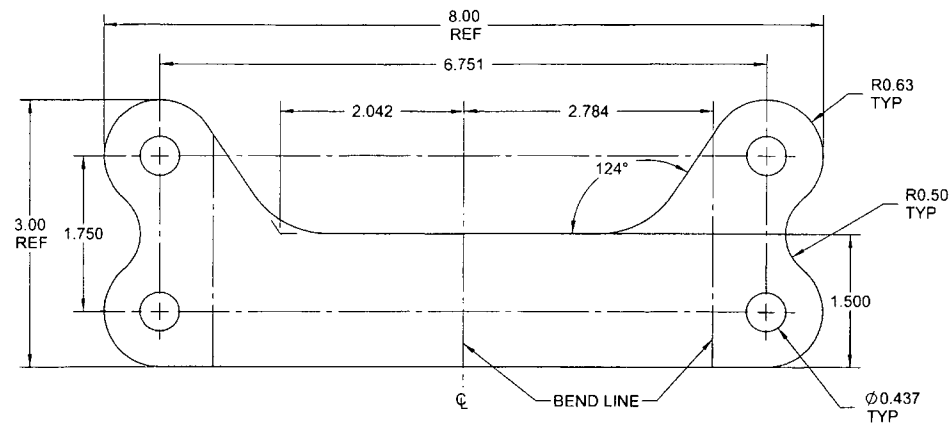
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

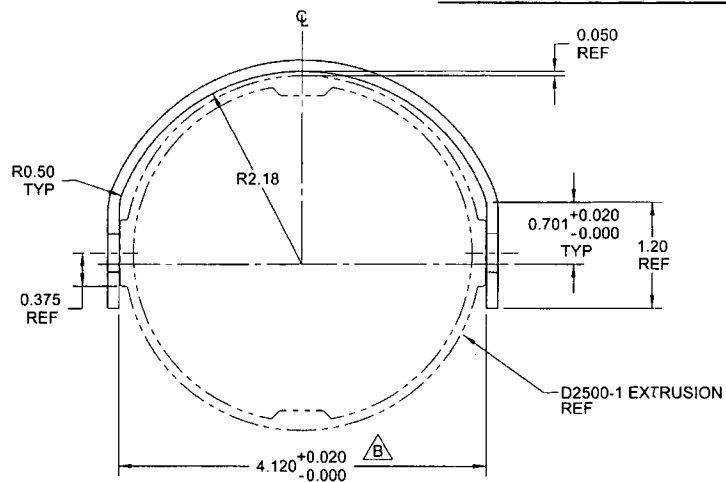
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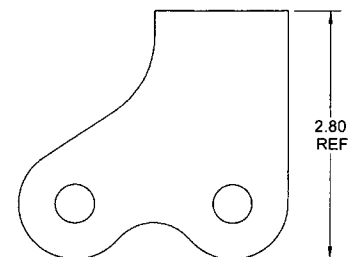
**NOTE:** Date & initial all entries



**D3405-3F GHW BRACKET FLAT PATTERN**



**D3405-3 GHW BRACKET**  
(MAKE FROM D3405-3F)



SIDE VIEW FOR REF ONLY

**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 11 GAUGE (0.125 THICK)  
PER MIL-S-5059 (ANNEALED) 2B FINISH OR AMS 5513/5524  
REF. DART SPEC. M304S11GA
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A

DESIGN	PH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3405	SHEET 4 OF 4
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DE APPR.		GHW LUG ASSEMBLY	NTS
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**RELEASED**  
06/12/19

82032

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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